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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,282	03/23/2006	Mikihiko Nishitani	504781100	9433
52044 7590 09/28/2007 SNELL & WILMER L.L.P. (Matsushita) 600 ANTON BOULEVARD SUITE 1400 COSTA MESA, CA 92626			EXAMINER MACCHIAROLO, PETER J	
			ART UNIT 2879	PAPER NUMBER
			MAIL DATE 09/28/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,282	Applicant(s) NISHITANI ET AL.	
	Examiner Peter J. Macchiarolo	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>03/23/2006</u> | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2879

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Re

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 03/23/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested:
PDP PROTECTIVE LAYER COMPOSITION.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by

Applicant cited Kimura (JP 2001332175: “Kimura”).

Regarding claims 1-3, and 6 Kimura discloses at least in figure 1, a plasma display panel in which a protective layer (15) covers a dielectric layer (14) covering electrodes (12,13) in discharge cells (not labeled) and faces a discharge space filled with a discharge gas (Xe), wherein the discharge gas includes at least one selected from the group consisting of Xe and Kr, and in the protective layer (15), an electron band including at least electrons having energy level of 4 eV or less below a vacuum level is formed within a forbidden band in energy bands.

The Examiner notes that chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, (in this case, Kimura discloses the protection layer mainly comprises MgO and is made with the same method and materials, including an oxygen deficit) the properties applicant discloses and/or claims are necessarily present. See MPEP 2112.01 and *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658(Fed. Cir. 1990).

Claims 1-4 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakahara (USPN 6242864: “Nakahara”).

Art Unit: 2879

Regarding claims 1-4, and 6 Nakahara discloses at least in figure 4, a plasma display panel in which a protective layer (18) covers a dielectric layer (17) covering electrodes (X,Y) in discharge cells (30) and faces a discharge space filled with a discharge gas (Xe), wherein the discharge gas includes at least one selected from the group consisting of Xe and Kr, and in the protective layer (18), an electron band including at least electrons having energy level of 4 eV or less below a vacuum level is formed within a forbidden band in energy bands.

The Examiner notes that chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, (in this case, Nakahara discloses in at least col. 5, ll. 11-17 the protection layer mainly comprises MgO with silicon impurities and is made with the same method and materials, including an oxygen deficit) the properties applicant discloses and/or claims are necessarily present. See MPEP 2112.01 and *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658(Fed. Cir. 1990).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahara in view of Applicant cited Akiyama et al (JP 2003 272533: "Akiyama").

Regarding claim 5, Nakahara is silent to including Ge or Sn being added to the MgO.

Art Unit: 2879

However, Akiyama teaches at least in the abstract that adding Ge or Sn reduces the starting voltage of the overall display.

Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Nakahara and adding Ge or Sn to reduce the starting voltage of the overall display.

Claims 7-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahara in view of Kajiwara (USPN 6833086; "Kajiwara").

Regarding claims 7-10 and 12 Nakahara discloses at least in figure 4, a plasma display panel in which a protective layer (18) covers a dielectric layer (17) covering electrodes (X,Y) in discharge cells (30) and faces a discharge space filled with a discharge gas (Xe), wherein the discharge gas includes at least one selected from the group consisting of Xe and Kr, and in the protective layer (18), an electron band including at least electrons having energy level of 5 eV or less below a vacuum level is formed within a forbidden band in energy bands.

The Examiner notes that chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, (in this case, Nakahara discloses in at least col. 5, ll. 11-17 the protection layer mainly comprises MgO with silicon impurities and is made with the same method and materials, including an oxygen deficit) the properties applicant discloses and/or claims are necessarily present. See MPEP 2112.01 and *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658(Fed. Cir. 1990).

Nakahara is silent to the discharge gas including Kr.

Art Unit: 2879

However, Kajiwara teaches that including Kr in such a plasma display lowers starting voltage.

Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Nakahara and including Kr discharge gas to lower the starting voltage.

Claims 7-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura in view of Kajiwara.

Regarding claims 7-9 and 12 Kimura discloses at least in figure 1, a plasma display panel in which a protective layer (15) covers a dielectric layer (14) covering electrodes (12,13) in discharge cells (not labeled) and faces a discharge space filled with a discharge gas (Xe), wherein the discharge gas includes at least one selected from the group consisting of Xe and Kr, and in the protective layer (15), an electron band including at least electrons having energy level of 4 eV or less below a vacuum level is formed within a forbidden band in energy bands.

The Examiner notes that chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, (in this case, Kimura discloses the protection layer mainly comprises MgO and is made with the same method and materials, including an oxygen deficit) the properties applicant discloses and/or claims are necessarily present. See MPEP 2112.01 and *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658(Fed. Cir. 1990).

Kimura is silent to the discharge gas including Kr.

Art Unit: 2879

However, Kajiwara teaches that including Kr in such a plasma display lowers starting voltage.

Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Kimura and including Kr discharge gas to lower the starting voltage.

Claims 7-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahara in view of Kajiwara in view of Akiyama.

Regarding claim 5, Nakahara and Kajiwara are silent to including Ge or Sn being added to the MgO.

However, Akiyama teaches at least in the abstract that adding Ge or Sn reduces the starting voltage of the overall display.

Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Nakahara and Kajiwara and adding Ge or Sn to reduce the starting voltage of the overall display.

Conclusion

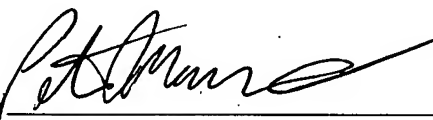
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Macchiarolo whose telephone number is (571) 272-2375. The examiner can normally be reached on 8:30 - 5:00, M-F.

Art Unit: 2879

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571) 272-2475. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

By 
Peter Macchiarolo
Patent Examiner, Art Unit 2879
(571) 272-2375